

## PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 150 (EASTERN BLVD.) AND MACE AVE./RIVERSIDE DR. IN BALTIMORE COUNTY. MD 150 IS ASSUMED TO RUN IN A EAST-WEST DIRECTION.

## INTERSECTION OPERATION

THE INTERSECTION CURRENTLY OPERATES IN A NEMA FIVE-PHASE, FULLY-ACTUATED MODE WITH AN EXCLUSIVE LEFT TURN PHASE FOR NORTHBOUND MD 150 AND SIDE STREET SPLIT PHASING. AN ALTERNATE PEDESTRIAN PHASE EXISTS ACROSS THE NORTH LEG OF MD 150. THIS PHASING WILL NOT CHANGE.

## CONTROLLER REQUIREMENTS

A NEW EIGHT-PHASE, FULLY-ACTUATED CONTROLLER HOUSED IN A BASE MOUNTED CABINET WITH VIDEO INTERFACE EQUIPMENT AND 2-WIRE CENTRAL CONTROL UNIT WILL BE INSTALLED AT THE INTERSECTION.

## APS NOTES

TO CROSS MD 150

- A. WHEN PEDESTRIAN LOCATES AND PRESSES PUSHBUTTON FOR AN EXTENDED TIME, THE PUSHBUTTON UNIT WILL BE "WAIT TO CROSS EASTERN AT MACE & RIVERSIDE, CROSSWALK ANGLES LEFT"
- B. WHEN WALK PHASE BEGINS, THE MESSAGE WILL BE A RAPID TICK, WHICH WILL LAST FOR THE DURATION OF THE WALK PHASE

## TRAFFIC SYSTEM OVERHEAD INTERCONNECT NOTE

EXISTING INTERCONNECT FROM MD 150 & MARIE AVE. CABINET TO MD 150 & TAYLOR AVE. CABINET SHALL BE REMOVED AND REPLACED WITH NEW 12-PAIR SELF SUPPORTING CABLE USING EXISTING HARDWARE IN SAME LOCATION ON UTILITY POLES.

## EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY THE SHA AND INSTALLED BY THE CONTRACTOR

QUANTITY	DESCRIPTION
1 EA	EIGHT-PHASE CONTROLLER AND BASE MOUNTED CABINET WITH TELEMETRY EQUIPMENT
2 EA	VIDEO INTERFACE EQUIPMENT
80.45 SF	SHEET ALUMINUM SIGNS TO CONSIST OF THE FOLLOWING: 1 EA - R3-5L (30" X 36") OVERHEAD MOUNT 2 EA - D3-2 (VAR. X 16") OVERHEAD MOUNT 2 EA - R3-4 (24" X 24") GROUND MOUNT 1 EA - R4-7 (16" X 30") GROUND MOUNT 2 EA - M95-1 (72" X 40") OVERHEAD MOUNT

## EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR. ALL EQUIPMENT SHALL HAVE CATALOG CUTS SUBMITTED TO THE OFFICE OF TRAFFIC AND SAFETY FOR APPROVAL PRIOR TO INSTALLATION.

ITEM NO.	QUANTITY	DESCRIPTION
1003	3 EA	MAINTENANCE OF TRAFFIC
1005	1 LS	MOBILIZATION
2001	242 CY	CLASS 2 EXCAVATION
2002	2 CY	TEST PIT EXCAVATION
5001	1 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING ARROWS
5002	4 EA	HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKING LETTERS
5004	325 LF	12 IN. HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
5005	45 LF	24 IN. WHITE HEAT APPLIED WHITE THERMOPLASTIC PAVEMENT MARKINGS
5007	315 LF	REMOVAL OF EXISTING PERMANENT PREFORMED PAVEMENT MARKING LINE - ANY WIDTH
6001	125 LF	STANDARD TYPE A COMBINATION CURB AND GUTTER
6002	968 SF	5 INCH CONCRETE SIDEWALK
8001	1 EA	2-WIRE CENTRAL CONTROL UNIT
9007	2 EA	AUDIBLE /TACTILE PEDESTRIAN PUSHBUTTON
9008	1 EA	10 FT. BREAKAWAY PEDESTAL POLE
9013	2 EA	L.E.D. 16 IN. COUNTDOWN PEDESTRIAN
9015	1 EA	16.5 FT. MAST ARM POLE & 38 FT. MAST ARM
9017	1 EA	16.5 FT. MAST ARM POLE & 70 FT. MAST ARM
9021	1 EA	REMOVE AND DISPOSE MATERIAL AND EQUIPMENT
9025	1 EA	VIDEO DETECTION CAMERA AND CABLE (200 FT.)
9025	3 EA	VIDEO DETECTION CAMERA AND CABLE (300 FT.)
9028	3750 LF	12-PAIR COMMUNICATION CABLE
9034	150 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT- SLOTTED
9035	30 LF	2" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
9035	55 LF	3" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
9035	210 LF	4" SCHEDULE 80 RIGID PVC ELECTRICAL CONDUIT - TRENCHED
9036	15.5 LF	FURNISH AND INSTALL WOOD SIGN SUPPORT (4" x 4")
9037	60 SF	DETECTABLE WARNING SURFACE (CLAY BRICK PAVERS)
9038	80.45 SF	INSTALL OVERHEAD OR GROUND MOUNTED SIGNS
9040	260 LF	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
9041	2 EA	FURNISH AND INSTALL 3 IN. WEATHERHEAD
9042	1 EA	METERED SERVICE PEDESTAL EMBEDDED
9044	90 LF	ELECTRICAL CABLE 1 - CONDUCTOR (NO. 4 A.W.G.) - THHN /THWN
9046	4 EA	ELECTRICAL HANDHOLE
9050	25 EA	12 INCH LED SIGNAL HEAD SECTION
9052	1 EA	CUT, CLEAN, GALVANIZE, AND CAP TRAFFIC SIGNAL STRUCTURE
9054	400 LF	ELECTRICAL CABLE 2 - CONDUCTOR (NO. 14 A.W.G.)
9056	285 LF	ELECTRICAL CABLE 5 - CONDUCTOR (NO. 14 A.W.G.)
9057	1360 LF	ELECTRICAL CABLE 7 - CONDUCTOR (NO. 14 A.W.G.)
9065	1 EA	INSTALL CONTROLLER AND CABINET - BASE MOUNT
NEG.	9 EA	FURNISH AND INSTALL 12 IN. SIGNAL HEAD SECTION - OPTICALLY PROGRAMMED

## EQUIPMENT LIST "C"

C. EXISTING EQUIPMENT TO BE REMOVED BY THE CONTRACTOR AND DELIVERED TO THE STATE HIGHWAY ADMINISTRATION, 7491 CONNELLEY DRIVE, HANOVER, MARYLAND 21076. THE CONTRACTOR SHALL NOTIFY THE SHA AT (410) 787-7652 AT LEAST THREE DAYS IN ADVANCE OF DELIVERY.

ITEM NO.	QUANTITY	DESCRIPTION
NONE		

ALL SIGNAL EQUIPMENT TO BE REMOVED AND NOT RETURNED TO THE SHA SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

## CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MS. ERIN KUHN ASSISTANT DISTRICT ENGINEER - TRAFFIC (410) 321-2781	MR. ANDRE FUTRELL ASSISTANT DISTRICT ENGINEER - MAINTENANCE (410) 321-2761
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MR. MICHAEL PASQUARIELLO  
ASSISTANT DISTRICT ENGINEER - UTILITIES  
(410) 321-2841

## CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

MR. RICHARD DAFF, SR.  
CHIEF, TRAFFIC OPERATIONS  
(410) 787-7630

MR. ROBERT SNYDER  
ASSISTANT DIVISION CHIEF,  
TRAFFIC OPERATIONS  
(410) 787-7631

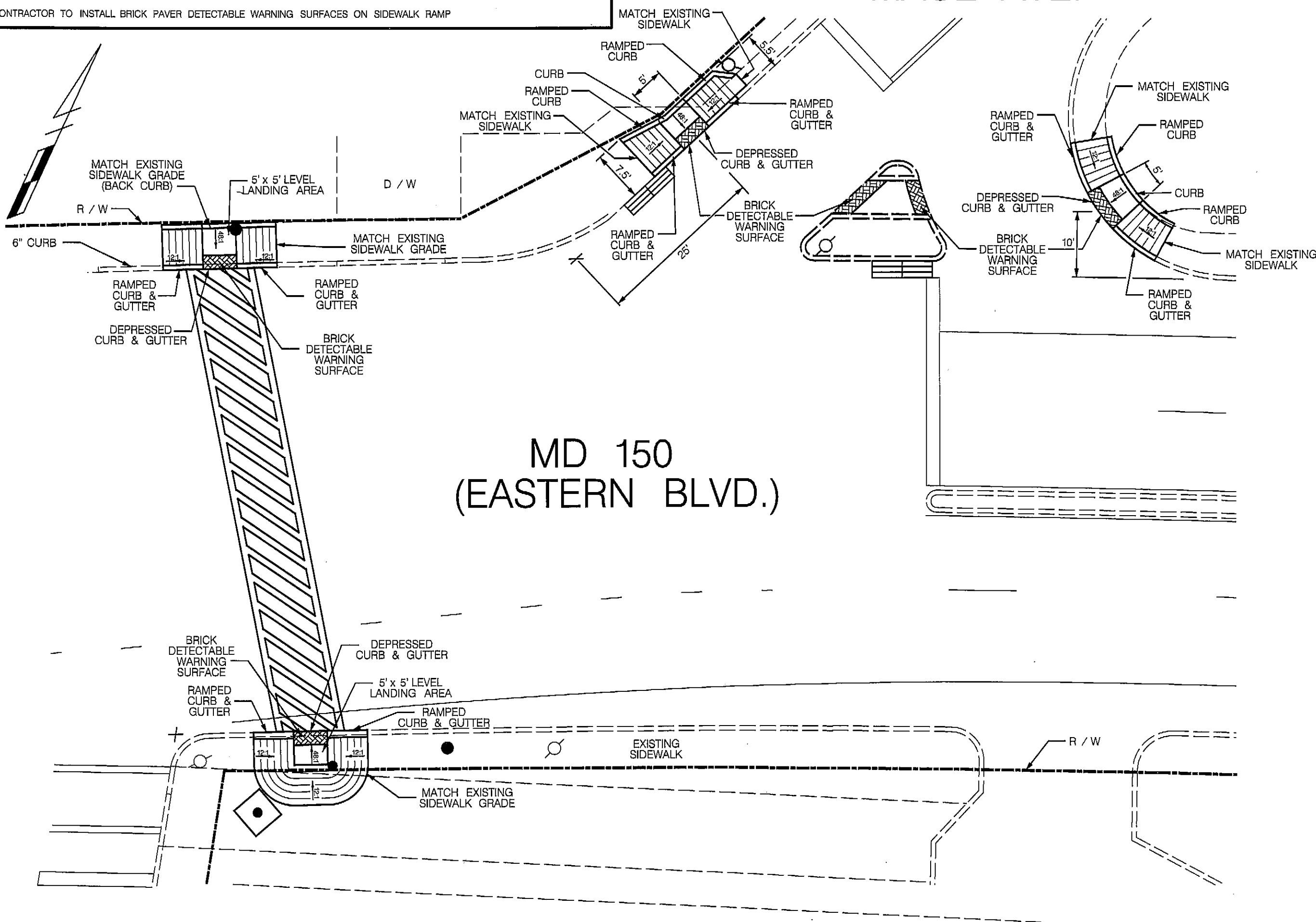
MR. ED RODENHIZER  
TEAM LEADER SIGNAL OPERATIONS  
(410) 787-7652

MR. EUGENE BAILEY  
TEAM LEADER SIGN OPERATIONS  
(410) 787-7676

MS. DARLENE EIDE  
SUPPLY OFFICE  
SIGNAL SHOP WAREHOUSE  
(410) 787-7668

## GENERAL NOTES

- NO DISTURBED AREA SHALL BE LEFT UNSTABILIZED OVERNIGHT UNLESS THE RUNOFF IS DIRECTED TO AN APPROVED SEDIMENT CONTROL DEVICE.
- SIDEWALK RECONSTRUCTION LIMITS SHALL COINCIDE WITH CRACK CONTROL JOINTS (JOINTER GROOVES) OR EXPANSION JOINTS IN EXISTING SIDEWALK. NEW EXPANSION JOINTS SHALL BE PROVIDED AT THE INTERFACE OF EXISTING AND PROPOSED SIDEWALK SEE STANDARD MD-655.13.
- SIDEWALK RAMPS ON THIS SHEET ARE DESIGNED AND SHOULD BE CONSTRUCTED ACCORDING TO THE LATEST STANDARDS.
- CONTRACTOR TO INSTALL BRICK PAVEMENT DETECTABLE WARNING SURFACES ON SIDEWALK RAMP.

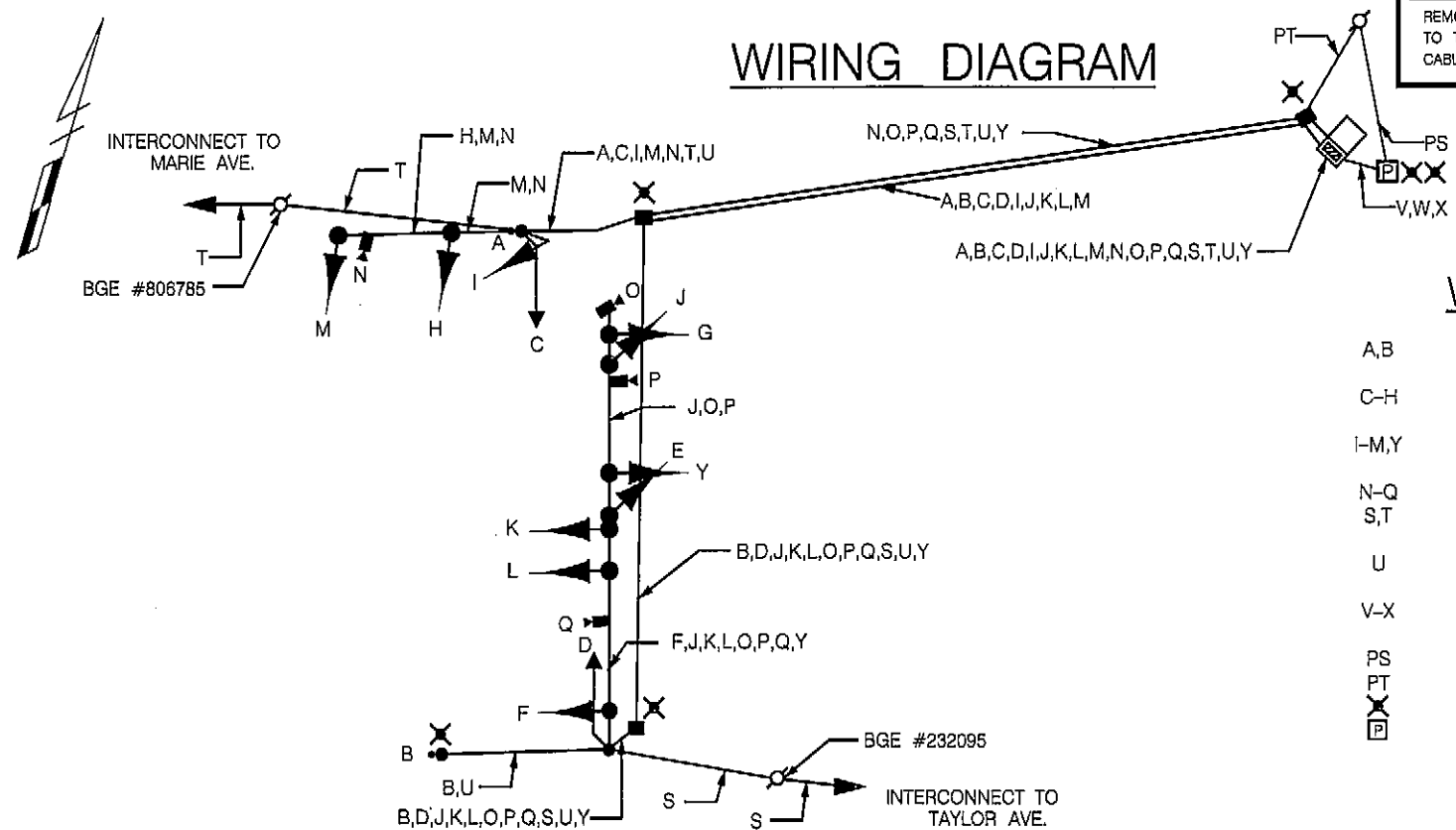


## PHASE CHART

	1	2	3	4	5	6	7	8	9	10	11	12
PHASE 1 & 6	G	G	G	R	R	R	R	R	R	DW	DW	
1 & 6 CHANGE	Y	Y	G	G	R	R	R	R	R	DW	DW	
PHASE 2 & 6	R	R	G	G	G	G	R	R	R	DW	DW	
2 & 6 CHANGE	R	R	Y	Y	Y	Y	R	R	R	DW	DW	
PHASE 3*	R	R	R	R	R	R	R	R	R	DW	DW	
3 CHANGE	R	R	R	R	R	R	R	R	R	Y	DW	DW
PHASE 3	R	R	R	R	R	R	R	R	R	G	WK	WK
RED CLEARANCE	R	R	R	R	R	R	R	R	R	Y	Y	Y
3 CHANGE	R	R	R	R	R	R	R	R	R	Y	Y	Y
PHASE 4	R	R	R	R	R	R	R	R	R	DW	DW	
4 CHANGE	R	R	R	R	R	R	R	R	R	DW	DW	
FLASHING OPERATION	FLR	FLR	FLY	FLY	FLY	FLY	FLR	FLR	FLR	FLR	DARK	DARK

\*PEDESTRIAN WALK PHASE SHALL BEGIN PRIOR TO THE START OF PHASE 3 VEHICLE GREEN INDICATIONS

## WIRING DIAGRAM



## INTERCONNECT NOTE:

REMOVE EXISTING OVERHEAD INTERCONNECT FROM MARIE AVE. TO TAYLOR AVE. INSTALL NEW 12-PAIR VOICE GRADE INTERCONNECT CABLE IN ITS PLACE.

## WIRING KEY

A-B	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
C-H	5-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
I-M,Y	7-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)
N-Q	VIDEO DETECTION CABLE
S-T	12-PAIR VOICE GRADE INTERCONNECT CABLE
U	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)
V-X	1-CONDUCTOR ELECTRICAL CABLE (NO. 4 A.W.G.)
PS	PROPOSED ELECTRIC SERVICE
FT	PROPOSED TELEPHONE SERVICE
⊗	GROUND ROD
⊕	METER SERVICE PEDESTAL

TOD NO: XX446-07  
SHA NO: B864A55/B55  
MD 150 @ MACE AVE/RIVERSIDE DR

## TRAFFIC CONCEPTS, INC.

325 Gambrills Road  
Suite E  
Gambrills, MD 21054

(410) 923-7101  
FAX: (410) 923-6473  
TRAFFIC@TRAFFIC-CONCEPTS.COM



STATE OF MARYLAND  
DEPARTMENT OF TRANSPORTATION  
STATE HIGHWAY ADMINISTRATION

OFFICE OF TRAFFIC & SAFETY  
TRAFFIC ENGINEERING DESIGN DIVISION

## GENERAL INFORMATION PLAN

MD 150 (EASTERN BLVD.) AT MACE AVENUE /  
RIVERSIDE DRIVE  
(ESSEX, MD)

SCALE NONE DATE 12-19-08 CONTRACT NO. XX4465185

DESIGNED BY T.ZAYDEL COUNTY BALTIMORE  
DRAWN BY T.ZAYDEL LOGMILE 03015003.02  
CHECKED BY S.RENZI T.I.M.S. NO. J-536  
F.A.P. NO. NA TOD NO.

DRAWING NO. TS 4678 GI SHEET NO. 2 OF 2

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